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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/613,084	07/07/2003	Shohei Fujisawa	116375	6990
25944	7590	10/05/2004	EXAMINER	
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			CRUZ, MAGDA	
			ART UNIT	PAPER NUMBER
			2851	

DATE MAILED: 10/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/613,084

Applicant(s)

FUJISAWA ET AL.

Examiner

Magda Cruz

Art Unit

2851

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15, 19 and 20 is/are rejected.
- 7) ☒ Claim(s) 16-18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

2. Figures 7, 8 and 9 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.121(d)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.
3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "polygonal post" (claim 19) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate

prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

4. In addition to Replacement Sheets containing the corrected drawing figure(s), applicant is required to submit a marked-up copy of each Replacement Sheet including annotations indicating the changes made to the previous version. The marked-up copy must be clearly labeled as "Annotated Marked-up Drawings" and must be presented in the amendment or remarks section that explains the change(s) to the drawings. See 37 CFR 1.121(d). Failure to timely submit the proposed drawing and marked-up copy will result in the abandonment of the application.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 4, 7, 10 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Chiu et al.

Chiu et al. (US Patent number 5,777,789) discloses an optical rod (56a) and the method for manufacturing said optical rod (column 3, lines 39-65) including a plurality of flat plates (82, 84, 86, 88), each flat plate having a light reflecting surface thereon (column 3, line 56), which form a tubular body of substantially rectangular cross-section with the surfaces thereof facing inward (column 3, line 57); wherein each of the plurality of flat plates (82, 84, 86, 88) is disposed in such a manner that the end surface of one of the flat plates at one end is held in contact with the surface of another of the flat plates adjacent to the same end (Figure 3), and the surface thereof at the other end is held in contact with the end surface of another of the flat plates adjacent to the other end (Figure 3); wherein each of the plurality of flat plates (82, 84, 86, 88) is made of glass (column 3, line 42), the surfaces thereof having a light reflection coating deposited thereon (i.e. reflecting surface of the mirror); wherein each of the plurality of flat plates (82, 84, 86, 88) is polished only on the end surface at one end (i.e. flat surface between plates 82, 84, 86 and 88; see Figure 3); a projector (10) comprising an illumination light source system (18) including a light source (12) and means for making uniform the irradiation of light emitted from the light source (column 4, lines 27-34); a color separation optical system for separating the light emitted from the illumination light source system into specified colored light beams (column 4, lines 46-57); a light

modulating device for modulating each colored light beam emitted from the color separation optical system according to image information (column 4, lines 57-67); and a projector lens (38) for projecting the light beams modulated by the light modulating device (column 5, lines 32-42).

7. Claims 1-3, 5-6, 8-9 and 11-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Strobl et al.

Strobl et al. (US Patent Number 6,771,870 B2) discloses an optical rod (column 5, lines 65-67) including a plurality of flat plates (2, 3), each flat plate (2, 3) having a light reflecting surface (6) thereon, which form a tubular body of substantially rectangular cross section with the surfaces thereof facing inward (Figure 1); wherein each of the plurality of flat plates (2, 3) is disposed in such a manner that the end surface of one of the flat plates (2, 3) at one end is held in contact with the surface another of the flat plates (2, 3) adjacent to the same end, and the surface thereof at the other end is held in contact with the end surface of another of the flat plates adjacent to the other end (column 7, lines 45-47); wherein each of the plurality of flat plates (2, 3) is disposed in such a manner that the end portion of one of the flat plates (3) at one end extends beyond a rear surface of another of the flat plates (2) adjacent to the same end at the contact portion of each flat plate (Figure 1); wherein the plurality of flat plates (2, 3) are bonded (4) to each other on the outer surfaces of the tubular body in such a manner that the rear surface of one of the flat plates (2) at one end is bonded to the surface on the extended end portion of another of the flat plates (3) adjacent to the same end (column 7, lines 47-52); wherein each of the plurality of flat plates (2, 3) is made of glass

(column 7, lines 45-47), the surfaces thereof having a light reflection coating (6) deposited thereon; wherein each of the plurality of flat plates (2, 3) is polished only on the end surface at one end (see Figure 1; i.e. end of plates 2 and 3); a manufacturing method of an optical rod (column 5, lines 65-67) which is formed into a tubular body having a substantially rectangular cross-section with a plurality of flat plates (2, 3) each having a light reflecting surface (6), with the surfaces facing inward (Figure 1), the manufacturing method (column 7, lines 39-54) including a securing step for securing each of the plurality of flat plates (2, 3) in such a manner that the end surface of one of the flat plates (2, 3) at one end is secured in contact with the surface of another of the flat plates (2, 3) adjacent to the same end and the surface thereof at the other end is secured in contact with the end surface of another of the flat plates adjacent to the other end (column 7, lines 47-54); wherein each of the plurality of flat plates (2, 3) is made of glass (column 7, line 45) subjected to a deposition process, the manufacturing method further including a deposition step for depositing a light reflection coating on the main surfaces thereof (column 7, lines 40-47); further including a polishing step (column 7, lines 61-65) wherein each of the plurality of flat plates (2, 3) are polished only on an end surface at the one end (i.e. flat surface between plates 2 and 3).

8. Claim 19 is rejected under 35 U.S.C. 102(b) as being anticipated by Kim et al.

Kim et al. (US Patent Number 5,734,768) discloses a manufacturing jig (abstract, line 2) comprising a plurality of substantially polygonal posts (14, 26, 30), wherein the plurality of substantially polygonal posts being connected by the spacers (32) so as to

form a post of substantially rectangular cross-section (Figure 3C; column 4, lines 46-57).

Allowable Subject Matter

9. Claims 16-18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. The following is a statement of reasons for the indication of allowable subject matter:

A manufacturing method of an optical rod including a core expansion step wherein a core is expanded by inserting spacers into gaps formed between inner side surfaces of a plurality of cores so that the outer surfaces thereof may form a post having a substantially rectangular cross-section (claim 16), cannot be made inherent or obvious by the prior art of record.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


Pritchard (US Patent Number 3,170,980) discloses an optical tunnel consisting of four blocks of optical glass.

Megarill (US Patent Number 5,625,738) teaches an optical system for providing uniform illumination, having a light tunnel.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Magda Cruz whose telephone number is (571) 272-2114. The examiner can normally be reached on Monday through Thursday 8:00-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on (571) 272-2258. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


JUDY NGUYEN
PRIMARY EXAMINER

Magda Cruz
Patent Examiner
September 29, 2004